PRRSV transmission between farms

M. Fertner[1], S. Kjærgaard Boldsen[1], N.R. Weber[2] and N. Toft[2]

[1] SEGES Innovation P/S, Copenhagen, Denmark
[2] Danish Agriculture & Food Council, Copenhagen, Denmark

Materials and Methods

Central Husbandry Register (farm demographics and movement of pigs)

Specific Pathogen Free Register (serological PRRS status)

175 cases

New PRRS-positive farms

Remained PRRS-negative

1,909 controls

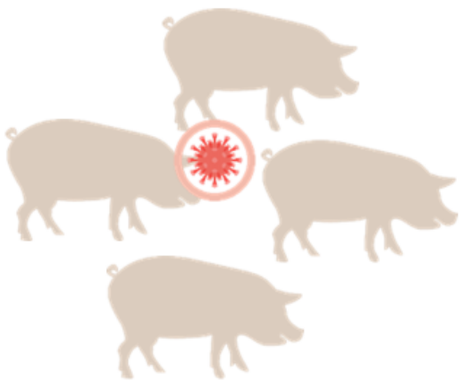
Risk factor analysis

Distance to PRRS-positive neighborhoods ($p < 0.001$)

Supplying farm became PRRS-positive within 90 days after movement of pigs ($p < 0.001$)

Cases due to deliberate inward movement of PRRS-positive pigs were excluded prior to risk factor analysis

Inward movement of PRRSV-positive pigs



Inward movement of non-diagnosed PRRSV-positive pigs

Results

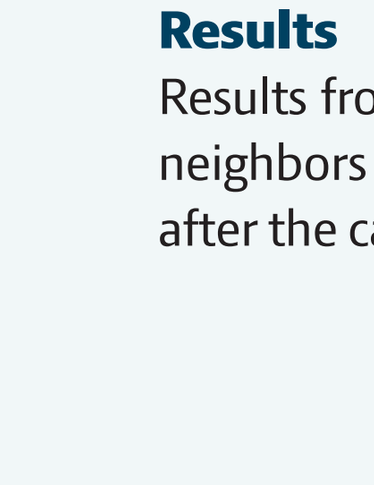
Results from the logistic regression analysis identified two significant risk factors; namely PRRS-positive neighbors ($p<0.001$) and purchase from suppliers which became PRRS-positive up to 90 days ($p<0.001$) after the case farm. The latter may indicate purchase of newly infected non-diagnosed pigs.

Objective

The objective of the present study was to identify routes of introduction and risk factors associated with the introduction of PRRS in Danish pig farms. the farms with sows.

Discussion and Conclusion

Results from the present study points towards the direct movement of PRRS positive pigs as the main driver of PRRSV transmission between pig farms in Denmark, while local spread seem to impact transmission in a smaller scale. This is likely influenced by the testing frequency, as most farms are tested annually.



CONTACT: Mette Fertner | Livestock Innovation | SEGES Innovation | +45 27571083 | mefr@seges.dk

SUPPORTED BY
Danish Pig Levy Fund

Danish Agriculture & Food Council
Pig Research Centre

SEGES INNOVATION